ATTACHMENT A

CLAIMS 3-10 OF US PATENT 5,293,772

3. A method for analyzing blood and plasma samples, comprising the steps of:
positioning a blood sample between a pair of spaced apart plates;
compressing, in a cyclical fashion with respect to time, said blood sample between said pair of spaced apart plates while said blood sample is clotting; and
determining a clot retraction force and a clot elastic modulus for said blood sample with respect to time.

4. A method for analyzing blood and plasma samples, comprising the steps of:
providing a blood sample with a clot dissolving or clot destroying agent;
positioning said blood sample between a pair of spaced apart plates;
allowing said blood sample to clot;
compressing said blood sample between said pair of spaced apart plates during clotting;
identifying a compression elastic modulus for said blood sample; and
relating said compression elastic modulus to erythrocyte flexibility.

5. A method as recited in claim 4 wherein said step of compressing is performed by displaying a first plate of said pair of spaced apart plates towards a second plate of said pair of spaced apart plates.

6. A method for analyzing blood and plasma samples, comprising the steps of:
providing a blood sample with a clot dissolving or clot destroying agent;
positioning said blood sample between a pair of spaced apart plates;
allowing said blood sample to clot and to dissolve;
compressing said blood sample between said pair of spaced apart plates in a cyclical fashion with respect to time while said blood sample is clotting and dissolving; and

identifying a dissolution time for a clot formed from said blood sample.

7. A method as recited in claim 6, wherein said step of identifying includes the step of analyzing a clot retraction force for said blood sample with respect to time.

8. A method as recited in claim 6, wherein said step of identifying includes the step of analyzing an elastic modulus of said blood sample with respect to time.

9. A method as recited in claim 6, further comprising the step of providing said blood sample with a clotting agent.

10. A method for analyzing blood and plasma samples, comprising the steps of:
providing a blood sample with a clot dissolving or clot destroying agent;
positioning said blood sample between a pair of spaced apart plates;
allowing said blood sample to clot;
compressing said blood sample between said pair of spaced apart plates during clotting by displacing a first plate of said pair of spaced apart plates toward a second plate of said pair of spaced apart plates wherein said step of compressing is performed cyclically with respect to time;
identifying a compression elastic modulus for said blood sample; and
relating said compression elastic modulus to erythrocyte flexibility.

CLAIMS 5-9 OF US PATENT 5,205,159

5. A method of determining an elastic modulus of a blood sample, comprising the steps of:
positioning a blood sample between a pair of spaced apart plates;
compressing said blood sample between said pair of spaced apart plates;
monitoring electrical output from a sensor connected to one of said pair of spaced apart plates during said compressing step; and
calculating an elastic modulus of said blood sample based on a relationship

between said electrical output and a degree of compression exerted during said compressing step.

6. A method as recited in claim 5 wherein said step of compressing includes the step of providing a weight of known mass at a position where gravitational forces acting on said weight will be transferred to one of said pair of spaced apart plates.

7. A method as recited in claim 5 wherein said step of calculating includes the step of determining a displacement calibration constant for said sensor.

8. A method of determining the retraction force and elastic modulus characteristics of a single blood sample, comprising the steps of
positioning a blood sample between a pair of spaced apart plates, the spacing allowing platelets in said blood sample to adhere to both of said plates;
monitoring a pulling force exerted on one of said plates pulling said plates towards each other while said blood sample is clotting;
determining a retraction force from measurements made during said monitoring step;
compressing said blood sample between said pair of spaced apart plates;
monitoring electrical output from a sensor connected to one of said pair of spaced apart plates during said compressing step; and
calculating an elastic modulus of said blood sample based on a relationship between said electrical output and a degree of compression exerted during said compressing step.

9. A method as recited in claim 8 further comprising the step of maintaining the blood sample between 35.degree. C. and 38.degree. C. during said step of monitoring said pulling force.

CLAIMS 7-15 OF US PATENT 4,986,964

7. A method for determining the retraction force characteristics of a blood sample during clotting, comprising the steps of:

positioning a blood sample between a pair of parallel plates which are a fixed distance apart which allows platelets in said blood sample to adhere to both of said plates;

maintaining the temperature of said blood sample between 35.degree. C. and 39.degree. C.; and

monitoring a pulling force exerted on one of said plates pulling said plates towards each other while said blood sample is clotting.

8. A method as recited in claim 7 wherein said step of maintaining maintains said temperature at approximately 37.degree. C.

9. A method as recited in claim 7 further comprising the step of adjusting the calcium concentration of said blood sample to be within the range of five millimolar and twenty millimolar.

10. A method as recited in claim 9 wherein said step of adjusting the calcium concentration adjusts the calcium concentration to be approximately ten millimolar.

11. A method as recited in claim 7 further comprising the step of adjusting the ionic strength of said blood sample to be within the range of 0.10 M and 0.20 M.

12. A method as recited in claim 11 wherein said step of adjusting the ionic strength adjusts the ionic strength to be approximately 0.15 M.

13. A method as recited in claim 7 further comprising the step of determining the lag phase prior to force development caused by said inward pulling force of said blood sample during clotting.

14. A method as recited in claim 7 further comprising the step of determining the maximum rate of force development caused by said inward pulling force of said blood sample during clotting.

15. A method as recited in claim 7 further comprising the step of determining the maximum force generated caused by said inward pulling force of said blood sample during clotting.